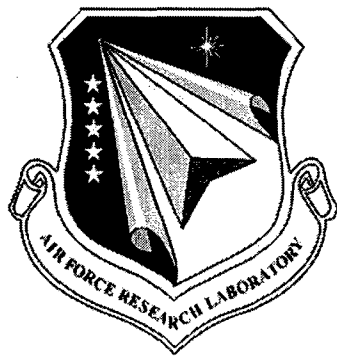AFRL-HE-WP-TP-2006-0087

Target Audience Analysis (TAA)

H. Lee Ellwanger

Human Effectiveness Directorate
Cognitive Systems Branch

March 2006

Interim Report for January 2004 to March 2006

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Air Force Research Laboratory
Human Effectiveness Directorate
Warfighter Interface Division
Cognitive Systems Branch
WPAFB OH 45433-7604

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Target Audience Analysis (TAA)

Interim Report: WU 7184X05C

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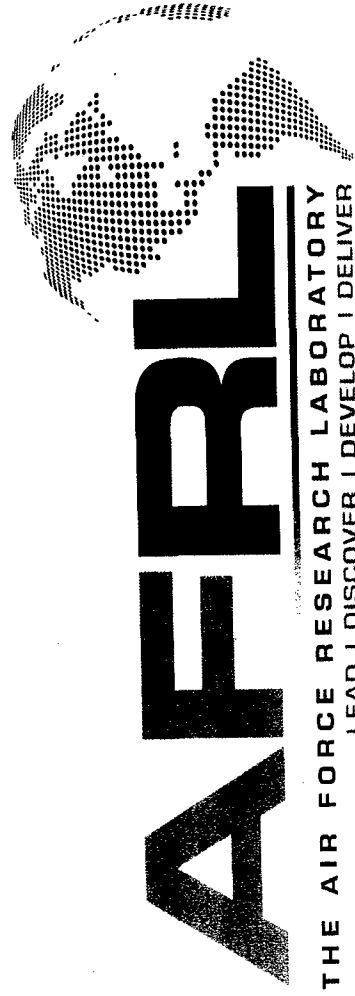
Lt H. Lee Ellwanger

Program Manager

Human Effectiveness Directorate

Target Audience Analysis

MOA was signed by AFRL and AFIT, effective Aug 05, in support behavioral modeling and other research.

Researchers gain access to cutting edge problems, subject matter experts, and data support

AFRL and NASIC benefit from research as it develops, aid in focusing work, and access to AFIT personnel and students

A win-win-win collaboration!

This will be done through masters thesis and graduate research efforts and doctoral dissertations

In addition, NASIC and AFIT have instituted a program to sponsor qualified junior officers to attend AFIT
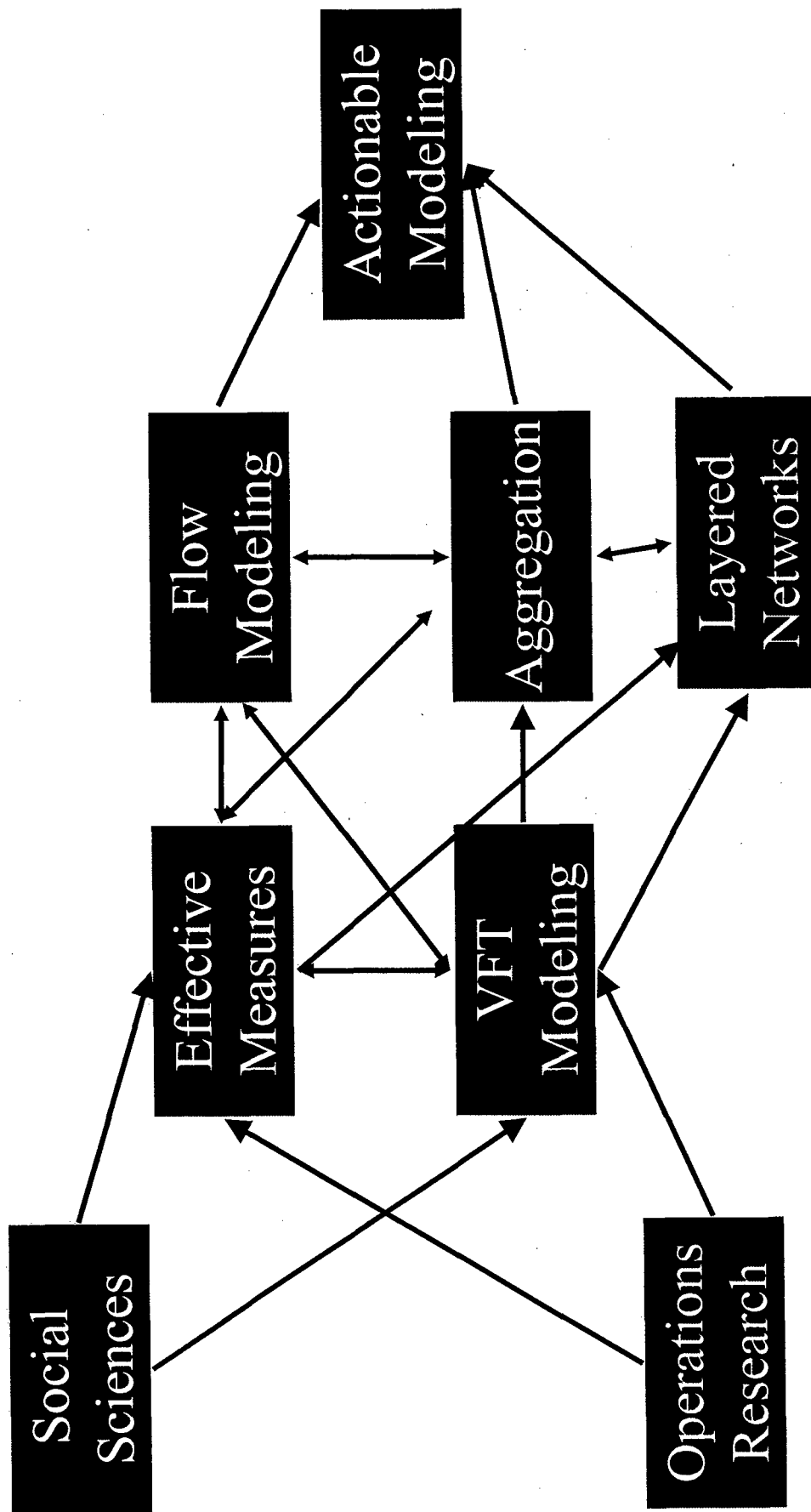
Target Audience Analysis

- Developing advanced mathematical models for SNA

  - Determining vulnerabilities in complex networks

    - Profile, differentiate, classify leaders

    - Disrupt and destruct clandestine networks

  - Address challenges of behavioral influence analysis by using SNA with OR to create actionable modeling

- Provides research that can begin to address challenges the intel analysts face with adversarial modeling and provide model development input

Target Audience Analysis

PSYOP Target Audience Analysis

Resource Information

- **Program Information**
  - **Program Level: 6.2**
  - **Start/Finish: FY05 – FY06**
  - **Total Funding ($K): $225K**
  - **Total S&E effort: 6 S&E-years**
- **Principal Technical Disciplines Involved**
  - Operations Research
  - Human Factors
  - Mathematics
  - Cultural Modeling
  - Behavioral Science
  - Intelligence Analysis

Products and Benefits to the Customer

- **Principal Customers:** NASIC, ACC and AFIWC
- **Products**
  - **Present:**
    - Actionable SNA Models
  - **Future:**
    - Advanced, tailored social network analysis tools
- **Benefit / Impact to the next user of your product (Value)**
  - **Future:**
    - Social Influence Network Analysis
    - Layered Social Network Analysis
    - Behavioral Influences Analysis

Description

Goal:

Specific Objectives: (Top 2 or 3 in bullets)

- Develop and demonstrate innovative PSYOP/Influence Ops planning & assessment tools
- Advance the science of target audience analysis
- Support strategic, operational planners

Approach or Methodology:

- Interoperable analysis, planning, and targeting tools
- Model-based decision support tools/methodology capable of predicting/measuring the effectiveness of PSYOP applications and strategies in the battlespace

Major Technology Milestones (Top 2-3 in bullets)

- advancing new applications and processes to run in existing SNA tools
- reliable mathematical architecture yielding 95% successful identification

Transition and Follow on Work

- Vehicle to utilize these models and algorithms for analyst use

  – Transition into software tool

  – Could also fund other model development

- Organizational and Cultural Criteria for Adversarial Modeling (OCCAM) Decision Aid

  – This will be combined with Graphical Agent Development Environment (GRADE), to form OCCAM-GRADE

 – Completion of this reengineered tool will be June 07

Transition and Follow on Work

- Will be government owned

- Will be used by other government agencies

  - Model development will incorporate AFIT and CIA models, and also PSYOP modeling process by CRA

- HECS managed program

  - We have say in development

- Using tools already in existence, OCCAM and GRADE (currently being reengineered into OCCAM-GRADE)

TAA/TAI Current Funding
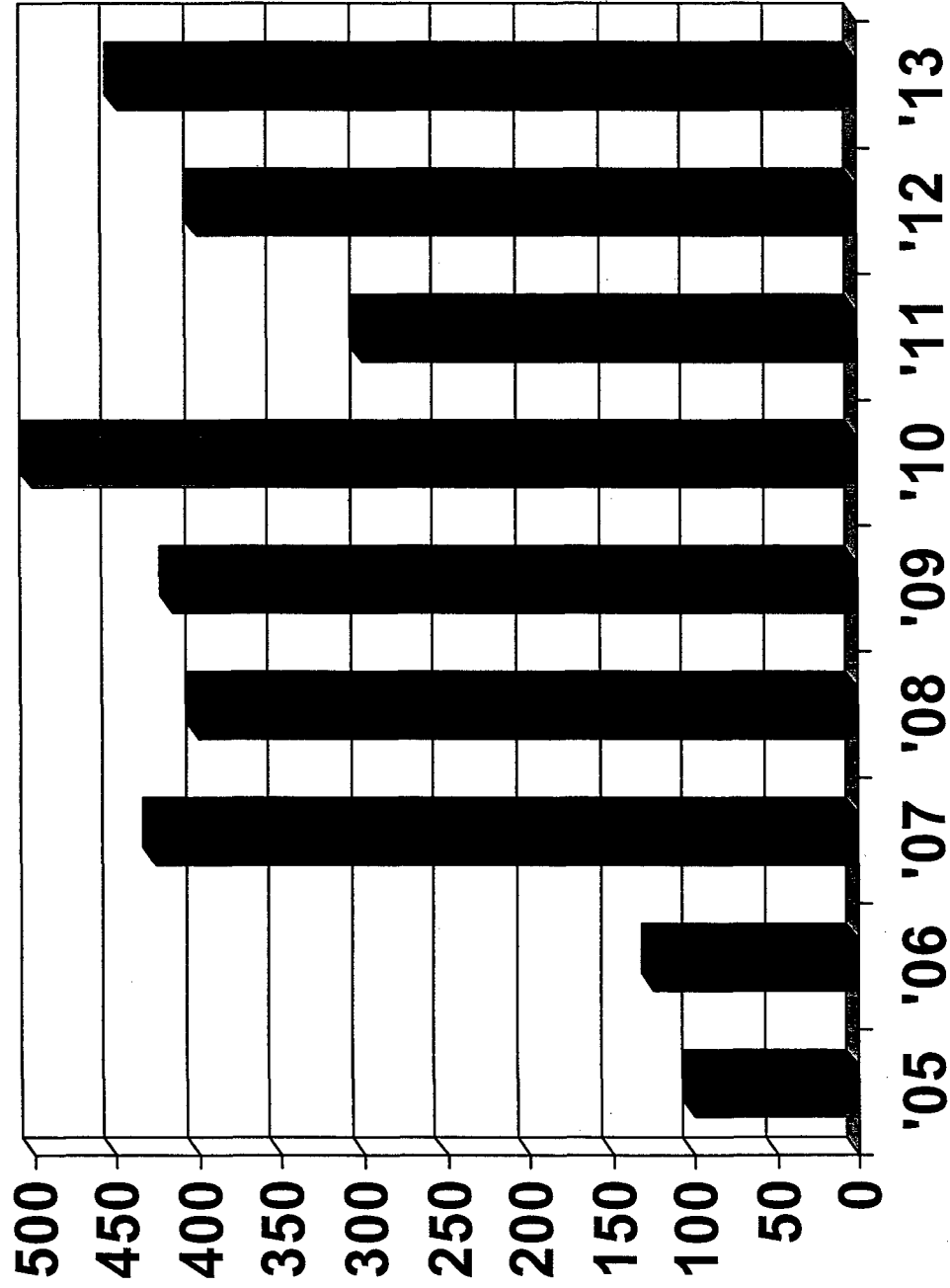
■ $K

Funding and Execution

- Obligations
  - 06 Funding (125K) has been MIPRed to AFIT

- Expenditures
  - Salaries and Benefits
  - Contract Services
  - Equipment
  - Supplies
  - Travel
  - Indirect Costs